



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,200	06/27/2001	Jonathan E. Michelson	68970	7077
26327	7590	08/08/2005	EXAMINER	
THE LAW OFFICE OF KIRK D. WILLIAMS 1234 S. OGDEN ST. DENVER, CO 80210			LE, VIET Q	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/894,200		MICHELSON ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Viet Q. Le		2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 2-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 28-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Amendment*

1. This communication is in response to applicant's amendment filed on July 14, 2005. Claims 1, 28-34 are pending.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 & 28-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Ma (U.S. 6,157,643) hereinafter referred to as Ma.

Regarding claims 1 & 31, Ma disclosed a packet switch (Figure 12), comprising:

A plurality of input / output interfaces (Figure 12, Input interfaces at lines coming into SE1 and output interfaces coming out from SE3);

A benes switching fabric including a plurality of first stage switching elements (Figure 12, first switching stage elements of SE1), a plurality of second stage switching

Art Unit: 2667

elements (Figure 12, second switching stage elements of SE2) and a plurality of third stage switching elements (Figure 12, third switching stage elements of SE3) communicatively-coupled via a plurality of paths (Figure 12, paths connecting SE1, SE2 and SE3 switching elements) according to a benes topology (Figure 12 is a Benes topology);

Wherein each first stage switching element (Figure 12, SE1) of the plurality of first stage switching elements: includes a flow control storage mechanism (Figure 1, storage of headers for both incoming packets and outgoing packets) for storing received flow control information extracted from information received from the corresponding input/output interfaces of said input/output interfaces to which said first stage switching element is coupled (Figure 1, storage of headers for both incoming packets and outgoing packets), and control logic for receiving said information, extracting said received flow control information from said information and for updating the storage mechanism with said received flow control information (Figure 1, storage of headers for both incoming packets and outgoing packets; column 2, lines 14-16);

Wherein each of the first stage switching elements is configured to repeatedly sequence through said flow control information currently stored in the storage mechanism and to send a portion of said flow control information stored at a current location within said flow control information over one of said paths to a predetermined one of the plurality of second stage switching elements, such that each of the first stage switching elements is configured to send said flow control information to a different one of the plurality of second stage switching elements (Figure 12, second stage SE2

Art Unit: 2667

accepting inputs coming from the first switching stage SE1 in according with a predetermined routing information coming from header translation table. See column 2, lines 14-16 and figure 1, box 12);

Wherein each of the plurality of second stage switching elements is configured to receive and forward said portions of flow control information to each of the plurality of third stage switching element (Figure 12, third stage SE3 accepting inputs coming from the second switching stage SE2 in according with a predetermined routing information coming from header translation table. See column 2, lines 14-16 and figure 1, box 12), and

Wherein each of the plurality of third stage switching elements is configured to send said portions of flow control information to each of the plurality of input/output interfaces for performing flow control operations in response to said flow control information (Figure 12, third stage SE3 accepting inputs coming from the second switching stage SE2 in according with a predetermined routing information coming from header translation table and forward these packets to the outputs. See column 2, lines 14-16 and figure 1, box 12).

Regarding claims 28 & 32, Ma disclosed the packet switch of claim 1, where the flow controls storage mechanism includes a flow control data structure indexed by said input / output interfaces (Figure 1, header translation table. Flow control data is in the headers of the packets and indexed by input and output ports).

Regarding claims 29 & 33, Ma disclosed the packet switch of claim 28, where each said information includes an address within the flow control data structure at which

Art Unit: 2667

to store said extracted flow control information (Figure 1, header translation table storing headers or flow control information by input and output ports).

Regarding claims 30 & 34, Ma disclosed the packet switch, wherein the packet switch is configured to re-route said sending and forwarding of said flow control information in the benes switching fabric in response to an identified error within the benes switching fabric (Column 13, lines 59-65, The switch is a self routing switch where the switch will re route packets if there is blockage or a failure internally to the switch).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1 & 28-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2667

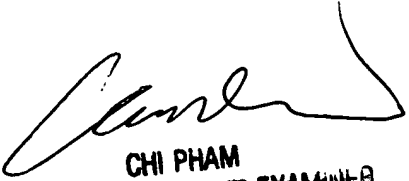
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Le whose telephone number is 571-272-2246. The examiner can normally be reached on 8 AM -5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VL

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2007 8/15/05